REMARKS

In the Office Action, Claims 1-36 were examined and are rejected. In response to the Office Action, Claims 1, 2, 5-12, 15-23, 26, 27, 31 and 34 are amended, no claims are cancelled , and no claims are added. Applicant respectfully requests reconsideration of pending Claims 1-36 in view of the following remarks.

I. Objection to the Drawings

The Examiner has objected to the drawings for failing to comply with 37 C.F.R. §1.84(p)(4) and 37 C.F.R. §1.84(p)(5). Applicant has amended FIGS. 2A, 4 and 5 and replacement sheets are provided. In addition, Applicant has amended the specification, such that each reference numeral indicated in FIGS. 1-19 is correctly referenced in the specification. In addition, changes to the figures have been made as needed to avoid the use of reference numerals to designate multiple items within the figures.

Accordingly, in view of Applicant's amendments to the specification, as well as the replacement sheets, Applicant respectfully requests that the Examiner reconsider and withdraw the objection to the drawings.

II. Objection to the Specification

The Examiner has objected to paragraph [00087] on page 22 of the specification for containing a typographic error. Applicant has amended paragraph [00087] in accordance with the Examiner's request and therefore request that the Examiner withdraw the objection to the specification.

III. Claims Rejected Under 35 U.S.C. §103

The Examiner has rejected Claims 1-20 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,782,260 issued to Nakakita et al. ("Nakakita") and U.S. Patent No. 6,718,172 issued to Cook et al. ("Cook") and further in view of U.S. Publication No. 2002/0129264 issued to Rowland et al. ("Rowland"). Applicant respectfully traverses this rejection.

The Federal Circuit Court of Appeals in In re Rijckaert, 9 F.3d 1531, 28 U.S.P.Q. 2d 1955 (Fed. Cir. 1993) held that:

> In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness. . . . "A *prima facie* case of obviousness is established when the teaching from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art.". . . If the examiner fails to establish a *prima facie* case, the rejection is improper and will be overturned. (Emphasis added.) 9 F.3d at 1532, 28 U.S.P.Q. 2d at 1956.

Regarding Claims 1 and 11, Claims 1 and 11 are amended to recite the following claim features, which are neither taught nor suggested by the combination of <u>Nakakita</u> in view of <u>Cook</u> and further in view of <u>Rowland</u>:

> authenticating by a host device, a detected wireless device according to a challenge and response scheme regarding an authentication key of the detected wireless device;
> if the detected <u>device fails authentication, requesting audio authentication initialization</u> information from the detected device;
> <u>authenticating</u> the detected device <u>based</u> on the requested <u>audio authentication initialization information</u>; and
> <u>storing</u>, by the host device, the <u>authentication key</u> of the detected wireless device to <u>enable</u> a <u>challenge and response scheme</u> for <u>subsequent authentication</u> of the detected wireless device. (Emphasis added.)

As correctly pointed out by the Examiner, <u>Nakakita</u> does not disclose expressly when the detected device fails authentication, requesting audio authentication initialization information from the detected device; and authenticating the detected device based on the requested audio authentication initialization information. (pg. 5, ¶3 of Office Action mailed July 12, 2005.) As a result, the Examiner cites <u>Cook</u>. According to the Examiner, <u>Cook</u> teaches the use of wireless voice authentication and transaction validation. (*See*, <u>supra</u>.)

As further correctly pointed out by the Examiner, the combination of <u>Nakakita</u> and <u>Cook</u> do not expressly teach switching to a different authentication method. (*See*, <u>supra</u>, pg. 6.) As a result, the Examiner cites <u>Rowland</u>, which according to the Examiner teaches switching to different authentication methods. Assuming, arguendo, that <u>Cook</u> teaches the use of wireless voice authentication and transaction validation and that <u>Cook</u> teaches switching to different authentication methods, Applicant respectfully submits that the combination of <u>Nakakita</u> in view of <u>Cook</u> and further in view of <u>Rowland</u> fail to teach each of the above-recited features of amended Claims 1 and 11. As recognized by case law:

> To establish *prima facie* obviousness of the claimed invention, all of the claim limitations must be taught or suggested by the prior art. <u>In re Royka</u>, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

Here, as recited by amended Claims 1 and 11, a host device initially engages in a challenge and response scheme regarding an authentication key of a detected wireless device. However, if the host device has never communicated with the detected wireless device, the host device will not have a stored authentication key of the detected wireless device. In accordance with the "Specification of the Bluetooth™ System," Version 1.1, published Feb. 22, 2001 ("Bluetooth™ System Specification") the host device would then request an authentication initialization token or key from the detected wireless device.

As dictated by the Bluetooth™ System Specification, the generation of such a key is performed during authentication initialization, where a slave device is required to generate the

initialization key based on a pin code and device identification information entered by a user along with a random number generated by the wireless slave device. According to the Bluetooth™ System Specification, the generation of the initialization key is derived from a random number and an L-octet PIN (personal identification number) code and the Bluetooth™ device address. The pin code, as well as the Bluetooth™ device address, are generally provided, via MII interaction by the user. As described by the Bluetooth™ System Specification, the Bluetooth™ device address (BD_ADDR) is a 48-bit IEEE address. The entry of this non-intuitive address, as well as the PIN number, is required each time a Bluetooth™ device connects with a new device.

Accordingly, as recited by amended Claims 1 and 11, rather than requiring the user to enter in the device address and PIN code, the host device allows a detected device to enter audio authentication initialization information as the initialization key. If the device is authenticated based on such information, as recited by Claims 1 and 11, the authentication key of the device is stored to enable a challenge and response scheme for subsequent authentication of the detected wireless device.

Applicant respectfully submits that the combination of Nakakita in view of Cook and further in view of Rowland fails to teach or suggest the use of audio authentication initialization information as an initialization key for authentication initialization to enable the exchange of an authentication key for subsequent challenge and response authentication, as recited by amended Claims 1 and 11, rather than requiring the user to enter a device identification and PIN code, as required by the Bluetooth™ System Specification.

Accordingly, assuming, arguendo, that Cook teaches the use of the wireless voice authentication and transaction validation, and Rowland teaches the switching to different authentication methods, such combination would merely teach a system that may alternately authenticate a wireless device via voice authentication or audio authentication. However, such combinations still fail to teach or suggest the use of audio authentication initialization information in the place of an initialization key during authentication initialization, as recited by Claims 1 and 11. As disclosed by the Bluetooth™ System Specification, the initialization key enables the exchange of an authentication key of the wireless device between the wireless device and the host device.

Hence, Applicant respectfully submits that the combination of Nakakita in view of Cook and further in view of Rowland, fail to teach or suggest each of the recited features of amended Claims 1 and 11, as required to establish a *prima facie* case of obviousness. Id. Consequently, Applicant respectfully submits that the Examiner fails to establish a *prima facie* case of obviousness of amended Claims 1 and 11, since all the claim features recited by amended Claims 1 and 11 are neither taught nor suggested by the prior art references of Nakakita in view of Cook and further in view of Rowland. Id.

Accordingly, Applicant respectfully submits that the combination of Nakakita in view of Cook would not have suggested each of the above-recited claim features to one skilled in the art, as required to establish a *prima facie* case of obviousness. In re Rijckaert, supra.

Therefore, Applicant respectfully submits that Claims 1 and 11, as amended, are patentable over the combination of Nakakita in view of Cook and further in view of Rowland. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 1 and 11.

Regarding Claims 2-10, Claims 2-10, based on their dependency from Claim 1, are also patentable over the combination of Nakakita in view of Cook and further in view of Rowland. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 2-10.

Regarding Claims 12-20, Claims 12-20 are also patentable over the combination of Nakakita in view of Cook and further in view of Rowland, based on their dependency from Claim 11. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 12-20.

The Examiner has rejected Claims 21, 25-26, 28 and 30-33 under 35 U.S.C. §103(a) as being unpatentable over Nakakita in view of Cook. Applicant respectfully traverses this rejection.

Regarding Claims 21 and 26, Claims 21 and 26 are amended to recited the following claim feature, which is neither taught nor suggested by the combination of Nakakita in view of Cook:

> engaging in a challenge and response scheme with the host device according to authentication information held by the wireless device to enable the host device to authenticate the wireless device;
> if a request for audio authentication initialization information is received from the host device, providing audio authentication initialization information to the host device. (Emphasis added.)

As recited by amended Claims 21 and 26, the host device and the wireless device would engage in a challenge and response scheme for authentication of the wireless device based on an authentication key of the wireless device. However, during initial communication between the wireless device and the host device, an authentication key of the wireless device is not held by the host device. As a result, the challenge and response scheme will not authenticate the wireless device.

Accordingly, as recited by amended Claims 21 and 26, under such circumstances, a request for audio authentication initialization information is received from the host device, which results in the wireless device providing audio authentication initialization information to the host device as an initialization key. Applicant respectfully submits that the mere use of wireless voice authentication and transaction validation, assuming, arguendo, such is taught by Cook, fails to suggest or teach the combination of a challenge and response scheme according to authentication information of a

wireless device to a host device and the transmission of audio authentication initialization information, as an initialization key, to the host device in response to a request for such information from the host device, as recited by amended Claims 21 and 26.

Hence, Applicant respectfully submits that the combination of <u>Nakakita</u> in view of <u>Cook</u> fails to teach or suggest the use of audio initialization information to be provided as an initialization key as part of authentication initialization between a host device and a wireless device. Consequently, Applicant respectfully submits that the combination of <u>Nakakita</u> in view of <u>Cook</u> fails to teach or suggest each of the above-recited features of Claims 21 and 26.

Accordingly, Applicant respectfully submits that the Examiner fails to establish a *prima facie* case of obviousness of Claims 21 and 26, as amended, since the Examiner fails to illustrate the teaching or suggestion of all claim features of amended Claims 21 and 26, based on the prior art references of <u>Nakakita</u> and <u>Cook</u>. <u>Id</u>. Hence, Applicant respectfully submits that the combination of <u>Nakakita</u> in view of <u>Cook</u> would not have suggested each of the above-recited claim features to one skilled in the art, as required to establish a *prima facie* case of obviousness. <u>In re Rijckaert</u>, <u>supra</u>.

Consequently, Applicant respectfully submits that Claims 21 and 26, as amended, are patentable over the combination of <u>Nakakita</u> in view of <u>Cook</u>, as well as the references of record. Therefore, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 21 and 26.

Regarding Claim 25, Claim 25, based on its dependency from Claim 21, is also patentable over the combination of <u>Nakakita</u> in view of <u>Cook</u>. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claim 25.

Regarding Claims 28 and 30, Claims 28 and 30, based on their dependency from Claim 26, are also patentable over the combination of <u>Nakakita</u> in view of <u>Cook</u>. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 28 and 30.

Regarding Claim 31, Claim 31 is amended to recite the following claim features, which are neither disclosed nor suggested by the combination of <u>Nakakita</u> in view of <u>Cook</u>:

> an <u>authentication</u> unit to <u>authenticate</u> at least one <u>wireless device</u> detected within communications range of the apparatus <u>using audio authentication</u> initialization information <u>of the detected wireless device if</u> a <u>challenge and response</u> scheme for authentication of the detected wireless device <u>fails to authenticate the detected wireless device</u>. (Emphasis added.)

For at least the reasons provided above regarding Claims 1, 11, 21 and 26, Applicant respectfully submits that the combination of <u>Nakakita</u> in view of <u>Cook</u> fail to teach or suggest the use of audio authentication initialization information as an initialization key, as required by the Bluetooth™ System Specification for communication between a slave device and a host device.

Accordingly, for at least the reasons described above, Applicant respectfully submits that the Examiner fails to establish a *prima facie* case of obviousness of Claim 31, as amended, since the combination of Nakakita in view of Cook fails to teach or suggest each of the above-recited features of Claim 31. In re Royka, supra. Therefore, Applicant respectfully submits that the combination of Nakakita in view of Cook would not have suggested the claimed subject to one of skill in the art, as required to establish a *prima facie* case of anticipation. Rijckaert, supra.

Therefore, Applicant respectfully submits that Claim 31, as amended, is patentable over the combination of Nakakita in view of Cook. Therefore, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claim 31.

Regarding Claims 32 and 33, Claims 32 and 33, based on their dependency from Claim 31, are also patentable over the combination of Nakakita in view of Cook. Therefore, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 32 and 33.

The Examiner has rejected Claims 22-24, 27 and 29 under 35 U.S.C. §103(a) as being unpatentable over Nakakita and Cook and further in view of Rowland. Applicant respectfully traverses this rejection.

Regarding Claims 22-24, Claims 22-24 depend from Claim 21. Regarding the Examiner's citing of Rowland, Applicant respectfully submits that the Examiner's citing of Rowland fails to rectify the deficiencies of the combination of Nakakita in view of Cook to teach or suggest each of the above-recited features of Claim 21.

For at least the reasons described above with reference to amended Claims 1 and 11, the combination of Nakakita in view of Cook and further in view of Rowland, do not teach or suggest the use of audio authentication initialization information as an initialization key, as recited by Claim 21, as required by the Bluetooth™ System Specification, for exchange of an authentication key between a slave device and a host device to enable subsequent authentication via a challenge and response scheme regarding the shared authentication key between the slave and the host device. Accordingly, Applicant respectfully submits that Claim 21, as amended, is patentable over the combination of Nakakita and Cook and further in view of Rowland.

Regarding Claims 22-24, Claims 22-24, based on their dependency from Claim 21, are also patentable over the combination of Nakakita in view of Cook and further in view of Rowland. Consequently, Applicant requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 22-24.

Regarding Claims 27 and 29, Claims 27 and 29, based on their dependency from Claim 26, are also patentable over the combination of Nakakita in view of Cook and further in view of Rowland. Consequently, Applicant requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 27 and 29.

The Examiner has rejected Claims 34-36 under 35 U.S.C. §103(a) as being unpatentable over Cook and further in view of U.S. Patent No. 6,766,160 issued to Lemiläinen et al. ("Lemiläinen"). Applicant respectfully traverses this rejection.

Regarding Claim 34, Claim 34 recites the following claim features, which are neither disclosed nor suggested by the combination of Cook in view of Lemiläinen:

> engage in a challenge and response scheme with the host device according to authentication information held by the wireless device to enable the host device to authenticate the wireless device; and
> request an audio authentication initialization information from a user of the wireless device if an audio authentication initialization request is received from the host device. (Emphasis added.)

For at least the reasons described above regarding Claims 21 and 26, the combination of Cook in view of Lemiläinen fail to provide any teachings or suggestions regarding the use of audio authentication initialization information as an initialization key, as required by the Bluetooth™ System Specification, for authentication initialization to enable exchange of an authentication key held by a wireless device to a host device to enable subsequent challenge and response authentication regarding the shared authentication key.

Accordingly, for at least the reasons described above, Applicant respectfully submits that the Examiner fails to establish a *prima facie* case of obviousness of Claim 34, as amended, since the combination of Cook in view of Lemiläinen fails to teach or suggest each of the above-recited features of amended Claim 34. In re Royka, supra. Consequently, Applicant respectfully submit that the combination of Cook in view of Lemiläinen would not have suggested the claimed subject matter to one of skill in the art, as required to establish a *prima facie* case of obviousness. Rijckaert, supra.

Accordingly, Applicant respectfully submits that Claim 34, as amended, is patentable over the combination of Cook in view of Lemiläinen. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claim 34.

Regarding Claims 35 and 36, Claims 35 and 36, based on their dependency from Claim 34, are also patentable over the combination of Cook in view of Lemiläinen. Therefore, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 35 and 36..

CONCLUSION

In view of the foregoing, it is submitted that Claims 1-36 patentably define the subject invention over the cited references of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes a telephone conference would be useful in moving the case forward, he is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

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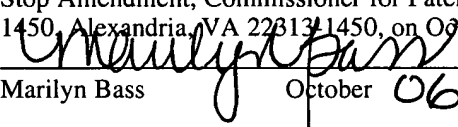
Dated: __October 06, 2005__

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Marilyn Bass   October 06, 2005